

Inland Waterways—

by Lieutenant Colonel Richard F. Wollenberg and William H. Ferguson

Deploying a brigade task force to Fort Chaffee led to the first barge movement by an Active Army unit since World War II.

In August and September 1989, the Army's 101st Airborne Division (Air Assault) deployed the equipment of a brigade task force and two UH-60 Black Hawk helicopters from its base at Fort Campbell, Kentucky, to Fort Chaffee, Arkansas. The task force was going to Fort Chaffee to participate in a Joint Readiness Training Center (JRTC) exercise. There was something different about this deployment, however. The division did not move the task force's equipment by the usual means of air, railroad, or highway. Instead, the 101st used barge transportation on the inland waterway system.

Although barge travel had been used successfully by Army National Guard and Army Reserve units from Oklahoma and Texas in making small-scale moves to such destinations as Camp Grayling, Michigan, and Fort Chaffee, not since World War II had an Active Army unit in the continental United States moved by barge. And never had a barge movement the size of the 101st's been attempted.

The Fort Campbell Directorate of Logistics (DOL) already was exploring the feasibility of using barges as an alternate means of transportation when the deployment to Fort Chaffee was scheduled. Two factors had generated the directorate's interest in barges. The DOL staff knew that adequate rail, highway, and air resources might not always be available to support deployment requirements of full mobilization. Experience in moving by barge could prove valuable in future contingencies. Using the inland waterways



would provide Fort Campbell with an alternate transportation capability to such recurring exercise destinations as Fort Chaffee and Camp Grayling, as well as access to several major Gulf Coast ports that would be used for an overseas deployment. The staff also knew that increasing commercial transportation costs made it prudent to search for the cheapest means of transportation available.

Initial estimates by DOL indicated that barge travel was cost effective and could meet the division's requirements; transit times by barge were competitive with those of other modes of transportation; loading and unloading times would be less for barges than for other modes; and the need for blocking, bracing, and tie-down materials would decrease significantly since only the first and last rows of vehicles on a barge would need to be secured. As a bonus, using barges would improve security (because the barges, once underway, would be inaccessible from land) and greatly reduce intransit damages to the equipment

A Deployment Alternative



Transportation Battalion had previously conducted successful barge-loading training exercises at the site. The relatively short distance to Lock "C" helped prevent congestion over the highway as convoys of vehicles traveled to the load site.

Once command approval was obtained to move the 2d Brigade task force over the inland waterways to Fort Chaffee, a series of activities began to ensure that the movement would proceed in an efficient and responsive manner.

The DOL's Installation Transportation Office (ITO), working closely with the Division Transportation Office (DTO), coordinated the units and activities involved in the move. The 2d Brigade provided the transportation offices with equipment density lists that formed the basis for developing barge loading plans. Movement requirements were provided to the Military Traffic Management Command (MTMC), which obtained the necessary equipment and selected a barge operator to handle the move.

The Army Corps of Engineers, already experienced in barge operations as a result of the Army National Guard and Reserve exercises, provided guidance on load requirements and operations and offered assistance in preparing the load site at Lock "C." Fort Campbell's 20th Engineer Battalion developed an access road to the actual load point, constructed a bridge from the ramp to the loading platform, and assembled bridging materials for use as needed. The 372d Transportation Company, as a result of its experience in barge loading exercises, assumed control of the load site and conducted the actual loading operations.

Personnel from the ITO and DTO were sent to Fort Chaffee to survey the area where the barges would discharge and to begin coordination with the Fort Chaffee ITO and the JRTC's receiving activity. After these consultations, all parties agreed that offload operations should be split between two separate points, at the city of Fort Smith, Arkansas, and at Camp Gruber, Oklahoma.

In August, MTMC notified Fort Campbell's ITO that Canal Barge Company, Inc., of New Orleans, Louisiana, had been awarded the contract for the move to Fort Chaffee. Meetings were then held with Fort Campbell activities, the Corps of Engineers, the U.S. Coast Guard, and Canal Barge Company repre-

□ The load site at old Lock "C" on the Cumberland River was a short drive from Fort Campbell. In the inset, a truck towing a water trailer crosses a bridge section onto a barge.

onboard (because the barges would be constantly in motion, not always stopping and starting).

Once the initial concept for deploying by barge had been developed, we realized that the only true method of determining its feasibility was to conduct an actual barge operation. The scheduled deployment of the 101st Airborne Division's 2d Brigade to Fort Chaffee offered an excellent opportunity to test the concept under actual deployment conditions. The DOL accordingly prepared a staff paper summarizing all available information on barge movement.

An already existing load site was available at Lock "C" on the Cumberland River, an old, dismantled river lock just 10 miles from Fort Campbell's rear gate. The 372d Transportation Company (Terminal Transport) of the Corps Support Brigade's 29th



□ One of the two Black Hawk helicopters is secured on a barge for its journey from Fort Campbell to Fort Chaffee.

representatives to coordinate the movement. Canal Barge Company had been involved with earlier National Guard and Reserve moves to Fort Chaffee, so its representatives were able to provide information and guidance that improved the conduct of the 101st's move.

As the actual dates for loading the barges approached, plans were finalized and the loading site readied. On 28 and 29 August, deploying vehicles were convoyed from Fort Campbell to the staging area at Lock "C" to prepare for loading. Fort Campbell's law enforcement personnel used the opportunity to practice traffic control procedures under deploy-

ment conditions. Military police traffic control points were established along the entire route of the convoy, from the installation to the load site. Police were also stationed at the load site to control access.

The 801st Maintenance Battalion established a "quick-fix" team at the load site to ensure that any unanticipated maintenance problems were quickly resolved and did not interfere with loading operations. The vehicles were segregated at the staging area by destination and load sequence so they could be called forward and loaded on the barges in a smooth, uninterrupted flow. The 501st Signal Battalion established communications links between the load site and the installation. The 326th Medical Battalion manned an aid station and medical evacuation helicopter to provide emergency medical treatment in the event of injuries.

On Monday, 28 August, Canal Barge Company began positioning the barges to make them accessible for loading. The towboats *Elizabeth Lane* and *Walter Hagestad*, which had brought the empty barges to Lock "C," would be used to transport the vehicles and aircraft to Fort Smith and Camp Gruber. The U.S. Coast Guard District Office in Paducah, Kentucky, dispatched a boat to control river traffic and provide escort service to the final destinations. Army Corps of Engineers personnel were standing by to monitor the departure and to expedite lock operations en route. The Corps of Engineers provided surveillance along the entire route to monitor the progress of the barges and establish their exact location at any given time.

Following preliminary loading and safety instruc-



□ Two towboats moved the 41 barges over 800 miles on the inland waterways to Arkansas and Oklahoma. A total of 688 vehicles and 2 aircraft were moved on the barges.

tions, loading finally began on 29 August. The entire operation proceeded even more smoothly than anticipated. Facing the challenge of a previously untested deployment operation, everyone from planner to stevedore, logistician to infantryman, put forth maximum effort to accomplish the task at hand. Everyone involved displayed a positive, "can-do" attitude as the vehicles rolled forward and were positioned aboard the barges.

On 30 August, loading was completed and the barges prepared for departure. The high point of the day brought applause from the crowd at the site when members of the 6th Battalion, 101st Aviation Regiment, landed two UH-60 Black Hawk helicopters on the barges. The helicopters were then secured for the trip. At 2130 on 30 August, the *Elizabeth Lane* and the *Walter Hagestad* pulled away from Lock "C" and began their 829-mile journey over the Cumberland, Tennessee, Ohio, Mississippi, and Arkansas Rivers to their destinations. The departure was made 1 full day ahead of the scheduled date.

In all, 688 vehicles and 2 aircraft, weighing in excess of 8 million pounds, were moved on 41 barges. The first flotilla of 19 barges arrived at Fort Smith on Wednesday, 6 September, while the remaining 22

barges docked at Boudinot Safety Harbor at Camp Gruber the following day.

The successful completion of this operation demonstrated that barge movement over inland waterways is a viable deployment option. The move also provided invaluable training in inland waterway operations for the soldiers and activities involved. The soldiers of the 101st Airborne Division, together with the supporting Fort Campbell tenant units, showed that they were fully capable of accomplishing their deployment mission by using a new and untried transportation concept.

ALOG

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Lessons Learned

by First Lieutenant Jeffrey W. Ridenour

The 372d Transportation Company (Terminal Transport) played a significant role in supporting the 2d Brigade task force's deployment to Fort Chaffee. Because the barges were bound for two destinations—Fort Smith and Camp Gruber—vehicles had to be loaded correctly to ensure delivery at the proper site. By participating in an exercise of this magnitude, company personnel learned several lessons that will improve inland waterway terminal operations in the future—

- Deploying units must adhere as closely as possible to their scheduled times for arriving at the loading site to avoid both congestion and delays while cargo is inspected and documentation is reviewed.
- Marshaling vehicles by destination and type is the only way to effectively handle large quantities of vehicles at a loading site.
- An adequate supply of flotation devices for personnel is a must, especially if there are many vehicle drivers.
- Upon arriving at the terminal marshaling area, equipment to be moved by barge should be prepared for over-the-road movement according to FM 55-30, Army Motor Transport Units and Operations. Equipment should be inspected before it is accepted for

loading by the terminal operators.

- An onsite maintenance team is invaluable for maintaining an uninterrupted flow while loading vehicles.
- A centralized command post is necessary for effective control, especially if stow plans or loading procedures change. Hand-held radios can provide the communications essential to centralized command and will greatly increase the efficiency of the operation.
- Access to barges must be tightly controlled. If too many people occupy the restricted space on the barges, a safety problem can result.
- Common stevedore equipment is a must.
- Stow plans are valuable guides during loading, but the plans must have correct vehicle dimensions.

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